

Reduction-Oxidation Plant

Fact Sheet – October 2021



The U.S. Department of Energy and contractor Central Plateau Cleanup Company are working to reduce the risks of aging facilities across the Hanford Site, such as the Reduction-Oxidation Plant, or REDOX.



The Reduction-Oxidation Plant, better known as the REDOX, was the fourth of five processing "canyons" constructed in the central part of the Hanford Site. The REDOX was used from 1952 through 1967 for the chemical separation of plutonium from irradiated fuel rods. The facility processed approximately 24,000 tons of uranium fuel rods.

At 470 feet long and 160 feet wide, the REDOX had the capacity to process up to 12 tons of uranium each day, compared to about 1.5 tons for Hanford's B Plant and T Plant. Operations at the REDOX also consolidated plutonium processing, which previously required multiple facilities and processes, into one building.

Mission

Workers are removing radiological and chemical hazards from the plant to prepare the facility for demolition. Workers also perform regular surveillance and maintenance of the REDOX canyon to keep the facility in a safe condition and ensure compliance with environmental regulations.

Future

Decontamination and demolition of the REDOX is among the Department of Energy's priorities to further reduce site risks to workers, the public and the environment.



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Disconnecting power lines is part of preparations to demolish the REDOX.

